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(19)

(11) Publication number:

**09164384 A**

Generated Document.

**PATENT ABSTRACTS OF JAPAN**(21) Application number: **07327394**(51) Intl. Cl.: **C02F 1/24 B01D 17/035**(22) Application date: **15.12.95**

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|---|---|
| (30) Priority:  | (71) Applicant: <b>mitsui mining co ltd</b>   |
| (43) Date of application publication: <b>24.06.97</b> | (72) Inventor: <b>HISAYOSHI YOSHINORI<br/>KIHARA TETSUTARO<br/>MORIYA SHOICHIRO</b> |
| (84) Designated contracting states:                   | (74) Representative:  |

**(54) FLOATATION  
SEPARATOR EQUIPMENT**

(57) Abstract:

**PROBLEM TO BE SOLVED:** To heighten the concentration degree of solid matter such as active sludge contained in waste water.

**SOLUTION:** A floatation separator tank 1 for concentrating solid matter such as active sludge contained in waste water to be treated is formed to a circular cross sectional shape, and also at a position almost half the liquid depth of the floatation separator tank 1, a discharge nozzle 34 for introducing waste water into the floatation separator tank 2 is installed, and waste water is horizontally discharged from the discharge nozzle 34. Since the discharge nozzle 34 is located at a position apart from the water surface, the part near water surface is kept in a stationary state, and also since waste water flowing out from the discharge nozzle 34 is rapidly and uniformly dispersed in the horizontal direction, the whole water surface is effectively utilized to concentrate solid matter such as activated sludge.

